There are criteria which allow preoperative prediction of certain non-survival after EVAR or open repair in RAAA patients: invasive treatment should be denied for such patients.

**Disclosures**

- Co-Founder: AORTICA Corporation

**Background**

- Several risk scores have been developed to predict mortality after rAAA repair:
  - Glasgow Aneurysm Score
  - Hardman Index
  - Vancouver Score
  - Edinburgh Ruptured AAA Score
  - VSGNE rAAA Score
- These scores have differing levels of clinical utility.

**Objective**

- We sought to develop a practical, clinically relevant, *preoperative* rAAA mortality risk score to aid in clinical decision making in the Endo Era.

**Background**

- Glasgow: not predictive in the Endo Era
- Hardman and Glasgow: fail to predict mortality in the highest risk populations
- VSGNE Score: validated in the Endo Era but includes intra-operative variables, limiting its use in the pre-operative setting.
Predictors of 30-Day Mortality

Risk Score for Prediction of Mortality
After repair of Ruptured Abdominal Aortic Aneurysm (AAA)

Preoperative Variables Predicting Mortality

<table>
<thead>
<tr>
<th>Risk Score</th>
<th>0 points</th>
<th>1 point</th>
<th>2 points</th>
<th>3 points</th>
<th>4 points</th>
</tr>
</thead>
<tbody>
<tr>
<td>Age &gt; 75 years</td>
<td>0%</td>
<td>22%</td>
<td>69%</td>
<td>80%</td>
<td>100%</td>
</tr>
<tr>
<td>Systolic BP &lt; 90 mmHg</td>
<td>0%</td>
<td>16%</td>
<td>22%</td>
<td>52%</td>
<td>72%</td>
</tr>
<tr>
<td>Diabetes status</td>
<td>0%</td>
<td>0%</td>
<td>49%</td>
<td>63%</td>
<td>72%</td>
</tr>
<tr>
<td>Cerebrovascular disease</td>
<td>0%</td>
<td>0%</td>
<td>18%</td>
<td>30%</td>
<td>45%</td>
</tr>
<tr>
<td>30-Day Mortality</td>
<td>0%</td>
<td>100%</td>
<td>80%</td>
<td>52%</td>
<td>22%</td>
</tr>
</tbody>
</table>

Prediction of EVAR 30 day Survival

Multivariate Logistic Regression
Comparison of Models Using Dichotomized vs Continuous Variables

Mortality Predicted by Harborview Preoperative rAAA Risk Score

Harborview Risk Score for rAAA
- pH < 7.2
- Age > 76
- Creat > 2.0
- Pre-op SBP < 70mmHg
- AUC 0.82*

Compared with 0.64 for Robinson, Glasgow, and Edinburg Scores

October 30th, 2018
- Simultaneous rAAA’s

87 yo
- SBP > 70mmHg
- Creat 0.9
- Serum pH 7.24
- Survived REVAR
- Discharged POD #2

76 yo
- SBP < 70mmHg
- Creat 2.7
- Serum pH 7.11
- Died in ER
- After 21 Minutes

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